Remarks on *Inape* Razowski, 1988 from Ecuador with description of 21 new species (Lepidoptera: Tortricidae: Euliini)

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Abstract. The Neotropical genus *Inape* Razowski, 1988 is characterized, a list of the known species is provided, 21 new species and 2 new subspecies are described from Ecuador: *Inape* ***extraria*** **sp. n.** (HT ♂), *Inape* ***uncina*** **sp. n.** (HT ♂), *Inape* ***luteina*** **sp. n.** (HT ♂), *Inape* ***elegans*** **sp. n.** (HT ♂), *Inape* ***incarnata*** **sp. n.** (HT ♂), *Inape* ***epiphanes*** **sp. n.** (HT ♂), *Inape* ***pompata*** **sp. n.** (HT ♂), *Inape* ***laterosclera*** **sp. n.** (HT ♂), *Inape* ***asymmetra*** **sp. n.** (HT ♂), *Inape* ***commoda*** **sp. n.** (HT ♂), *Inape* ***homora*** **sp. n.** (HT ♀), *Inape* ***porpax*** **sp. n.** (HT ♀), *Inape* ***cateres*** **sp. n.** (HT ♂), *Inape* ***eparmuncus*** **sp. n.** (HT ♂), *Inape* ***homeotypa*** **sp. n.** (HT ♂), *Inape* ***homologa*** **sp. n.** (HT ♂), *Inape* ***polysparta*** **sp. n.** (HT ♀), *Inape* ***celypha*** **sp. n.** (HT ♀), *Inape* ***pseudocelypha*** **sp. n.** (HT ♀), *Inape* ***geoda*** **sp. n.** (HT ♀), *Inape* ***sororia*** **sp. n.** (HT ♂), *Inape sororia* ***coryssa*** **ssp. n.** (HT ♂), *Inape sororia* ***lojana*** **ssp. n.** (HT ♂). The holotypes of the new species are presently in the collection of Volker Pelz, Ruppichteroth, Germany, and eventually will be deposited in the Senckenberg-Museum, Frankfurt am Main, Germany.

Keywords: Andes, cloud forest, high elevation.

Anmerkungen zur Gattung *Inape* Razowski, 1988 aus Ecuador mit Beschreibung von 21 neuen Arten (Lepidoptera: Tortricidae: Euliini)

Zusammenfassung: Die in der Neotropis verbreitete Gattung *Inape* Razowski, 1988 wird charakterisiert, und die bekannten Arten werden aufgelistet. Aus Ecuador werden 21 Arten und 2 Unterarten neu beschrieben. In der Liste der neuen Taxa im englischen Abstract wird in Klammern das Geschlecht des Holotypus angegeben (siehe Abstract). Die Holotypen der neuen Taxa befinden sich zur Zeit in der Sammlung Volker Pelz, Ruppichteroth, Deutschland, und werden letztlich an das Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Deutschland, gelangen.

Observaciones sobre el género *Inape* Razowski, 1988 de Ecuador con la descripción de 21 nuevas especies (Lepidoptera: Tortricidae: Euliini)

Resumen: Se dan las características del género Neotropical *Inape* Razowski, 1988 y se da una lista de las especies conocidas. Se describen del Ecuador 21 nuevas especies y dos subespecies. En la lista de las taxas nuevas en el resumen inglés se da el sexo del holotipo en paréntesis. Los holotipos de las especies nuevas están en la colección Volker Pelz, Ruppichteroth, Alemania, determinados ultimamente para el Senckenberg-Museum, Frankfurt am Main, Alemania.

Introduction

Inape Razowski, 1988 was described to comprise two Neotropical species. Then Brown (1989) included further two species in this genus and Powell et al. (1995) transferred *Eulia biremis* Meyrick, 1926 to *Inape*. Razowski (1997, 1999) described three additional species from Peru and Ecuador in *Inape.* Recently Brown & Razowski (2003) reviewed the preceding studies, described further five species and reassessed the characteristics of this genus. The number of the species of *Inape* increased thus to 13. They also characterized *Tylopeza* Razowski, 1995 as the possible sister-genus of *Inape*.

In extensive Euliini material recently collected in Ecuador, mainly on a collecting trip of the second author and his wife together with Siska and Dr. Cees Gielis, many new taxa of *Inape* were found and the number of *Inape* species increased now to 34. This new material enabled us to re-examine some generic characters.

Externally the species of this genus show a distinct variation in colouration and markings. A plesiomorphic pattern characterizes with more or less preserved transverse markings occasionally combined with an additional radial element extending along the distal part of the costal edge of the median cell and reaching the apex of the wing. The median fascia may be followed by a strong suffusion reaching the median part of the termen. In some species in the basal area of the forewing a blotch with an oblique distal edge develops, whose inner area is very often pale. This pattern shows up also in other Neotropical genera of Euliini. The dorsal part of this blotch is occasionally reduced to a postbasal fascia which is either complete or preserved only in the dorsal area of the wing. In some species postmedian and subterminal markings are preserved or a subtornal elongate mark appears. In further species the particular elements may fuse or disappear. A sexual dimorphism expressed in the forewing pattern is found in *Inape sororia* sp. n. in which the ♂♂ have a complete basal blotch while the ♀♀ show well developed postmedian elements.

In the ♂ genitalia a new character found is the presence of a dorsobasal spine-like process of the sacculus; in some species the sacculus is angulated distally, often accompanied by a row of spines; similar spines may be present in species with simple, not angulate sacculi. Usually the uncus is slender but in a few species (e.g. *I. penai* Razowski, 1988) is strong or short, very broad postbasally or submedially. Only exceptionally the uncus is expanding terminally (e.g. *I. extraria* sp. n.). The number of cornuti is species-specific and is variable in some species as well, e.g. *I. sororia* sp. n. and *I. pompata* sp. n.

♀ genitalia. The sterigma is broad, with a more or less distinct anteostial sclerite. The ductus bursae is broad, membranous or provided with various sclerites, transverse or longitudinal placed either in its proximal part or in the collicular portion. There are two long sclerites, one (called here the lateral) with small marginal spines, and the other one long, slender, armed with strong spi-

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nes occurring in innumerous species (named the spiny sclerite; cf. illustrations). Exceptionally there occurs a rounded sclerotic plate with strong marginal spines.

The systematic position of the genus remains unclear. The most closely related genus is *Tylopeza* Razowski, 1995. The only autapomorphy of *Inape* is still the structure of the transtilla armed with a pair of dorsosubmedian lobes distinctly separated from one another by means of a concave, well sclerotized median portion.

Systematic arrangement of species: We could not find any constant correlation between the character states of particular genital or external structures. It is, however, possible to distinguish some groups of species. Thus essentially we follow the arrangement by Brown & Razowski (2003).

Distribution: All hitherto known species of *Inape* are distributed at high elevations (2000–4000 m a.s.l.) of the Andes from Colombia to Bolivia with only two species already recorded from Ecuador. The new species from Ecuador were all found from 1700 m to 4000 m in cloud forest habitats and confirm therefore a presumable restriction of the genus to higher elevations of the Andes.

To date nothing is known about their biology and their immature stages.

The holotypes of the new species are at present in the collection of Volker Pelz, Ruppichteroth, Germany, and eventually will be deposited in the Senckenberg-Museum, Frankfurt am Main, Germany.

This publication is the seventh on Ecuadoran Euliini after Razowski & Pelz (2003) (see complete list of papers in the references).

Note. Numbers included in descriptions of the labial palpus refer to the proportion of their total length to the horizontal diameter of the compound eye.

Abbreviations and terms:

>	road from > to.
CVPR	Collection Volker Pelz, Ruppichteroth, Germany.
GU	Genitalia slide no.
HT	Holotype(s).
ISEZ	Institute of Systematics and Evolution of Animals PAS, Kraków, Poland.
N, E, S, W	compass points.
PAS	Polish Academy of Sciences.
Phallus	formerly aedeagus (aedoeagus); compare Kristensen (2003: 103).
PN	National Park.
Prov.	Province.
PT	Paratype(s).
PUCE	Museo de Zoología, Centro de Biodiversidad y Ambiente, Pontificia Universidad Católica del Ecuador, Quito, Ecuador.
SMFL	Lepidoptera collection of Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany.
sta	collecting locality.
Stt	station.

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Systematic part

List of species of *Inape*

(With the country of the type locality provided. New taxa in **bold** types.)

Inape Razowski (1988, Acta zool. Cracov. **31:** 394).

(Type species: *Inape penai* Razowski, 1988)

*I. **extraria*** **sp. n.** – Ecuador

I. auxoplaca (Meyrick, 1926) – Colombia

*I. **uncina*** **sp. n.** – Ecuador

*I. **luteina*** **sp. n.** – Ecuador

I. biremis (Meyrick, 1926) – Colombia

I. papallactana Razowski, 1999 – Ecuador

I. bicornis Razowski, 1999 – Ecuador

*I. **elegans*** **sp. n.** – Ecuador

*I. **commoda*** **sp. n.** – Ecuador

*I. **incarnata*** **sp. n.** – Ecuador

*I. **epiphanes*** **sp. n.** – Ecuador

*I. **pompata*** **sp. n.** – Ecuador

*I. **laterosclera*** **sp. n.** – Ecuador

*I. **asymmetra*** **sp. n.** – Ecuador

*I. **homora*** **sp. n.** – Ecuador

*I. **porpax*** **sp. n.** – Ecuador

I. semuncus Razowski, 1997 – Peru

*I. **cateres*** **sp. n.** – Ecuador

*I. **eparmuncus*** **sp. n.** – Ecuador

I. penai Razowski, 1988 – Bolivia

*I. **homeotypa*** **sp. n.** – Ecuador

*I. **homologa*** **sp. n.** – Ecuador

I. circumsetae Brown & Razowski, 2003 – Colombia

I. centrota Brown & Razowski, 2003 – Colombia

*I. **polysparta*** **sp. n.** – Ecuador

I. reductana Brown & Razowski, 2003 – Peru

*I. **celypha*** **sp. n.** – Ecuador

*I. **pseudocelypha*** **sp. n.** – Ecuador

I. sinuata Brown & Razowski, 2003 – Bolivia, new for Ecuador

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*I. **geoda*** **sp. n.** – Ecuador

I. clarkeana Brown & Razowski, 2003 – Colombia

*I. **sororia*** **sp. n.** – Ecuador

*I. sororia **corryssa*** **ssp. n.** – Ecuador

*I. sororia **lojana*** **ssp. n.** – Ecuador

I. xerophanes (Meyrick, 1909) – Peru

I. iantha (Meyrick, 1926) – Colombia

Descriptions of new taxa

*Inape **extraria*** sp. n.

(Figs. 7, 37, 38)

Holotype ♂: "Ecuador: Pichincha-Prov., 1 km W Papallacta-Pass, 3990 m, 0°19′55″ S, 78°12′50″ W, 22. xii. 2004, leg. Volker Pelz"; GU-2430-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the systematic position of the species; Latin: extra – outside, -arius – an adjective suffix. It is defined here as a noun in apposition.

Diagnosis: External characters of *I. extraria* sp. n. as in numerous other species, e.g. in *I. elegans* sp. n. or *I. incarnata* sp. n., but easily distinguished in connected basal, median and subapical elements of markings; ♂ genitalia similar to those of *I. papallactana* but differing from all known species of *Inape* in possession of a median lobe of the transtilla situated between the submedian processes typical of the genus.

Description: ♂ (Fig. 7). Wing span 25.0 mm. Head ferruginous, thorax brownish, brown proximally; labial palpus 3.0, concolorous with head. Forewing weakly expanding terminally, termen oblique. Ground colour ferruginous; strigulae and markings brown. Basal blotch indistinct, partly fusing with postbasal fascia; this last connecting with median fascia by means of a curved fascia, the latter connected with subapical blotch. Cilia concolorous with ground colour. Hindwing whitish cream, tinged ochreous at apex; strigulation diffuse, grey; cilia cream.

♂ genitalia (Figs. 37, 38). Uncus strongly expanding terminally with weak apical concavity; valva slender; sacculus simple, slender, convex near middle; dorsal part of transtilla with broad, rounded median lobe situated between short submedian processes; phallus slender, long; one strongly curved at base circular cornutus in vesica.

♀ not known.

Remarks. The systematic position of this species is doubtful; some characters as broad uncus, simple valva and sacculus are seemingly of a plesiomorphic importance. That was a reason to place it at the beginning of the infrageneric system. The structure of the transtilla is, however, specialised.

*Inape **elegans*** sp. n.

(Figs. 18, 43, 44)

Holotype ♂: "Ecuador: Napo-Prov., 5 km W Papallacta, Laguna Papallacta, 3430 m, 0°22′27″ S, 78°9′50″W, 28. x. 2002, sta 40, leg. Gielis & Pelz"; GU-1552-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the beautiful appearance of this large new species; Latin: elegans – elegant. It is defined here as a noun in apposition.

Diagnosis: The systematic position of *I. elegans* sp. n. is somewhat unclear; externally it resembles *I. uncina* sp. n. but in ♂ genitalia the sacculus of valva is hooked terminally and the cornuti are straight.

Description: ♂ (Fig. 18). Wing span 25.5 mm. Head pale brownish, labial palpus 2.5; thorax rather brown. Forewing fairly broad, termen weakly oblique. Ground colour creamy brownish with weak ferruginous hue and some darker portions; strigulation and some spots brown. Markings brown consisting of large basal blotch and costal half of median fascia extending at the end towards mid-termen. Cilia concolorous with ground colour, brown between apex and mid-termen. Hindwing whitish, pale ochreous in apex area; strigulation brownish grey; cilia whitish tinged ochreous towards apex.

♂ genitalia (Figs. 43, 44). Uncus as in above mentioned species; valva upcurved; sacculus strong terminating in a distinct claw-shaped process; processes of transtilla long; end of phallus protruding; cornuti two strong spines.

♀ unknown.

*Inape **incarnata*** sp. n.

(Figs. 14, 45, 46)

Holotype ♂: "Ecuador: Pichincha-Prov., 1 km W Papallacta-Pass, 3990 m, 0°19′55″ S, 78°12′50″ W, 22. xii. 2004, leg. Volker Pelz"; GU-2429-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the colouration of the forewing; Latin: incarnata – flesh coloured. It is defined as a noun in apposition.

Diagnosis: *Inape incarnata* sp. n. is very similar to *I. elegans* sp. n. but distinguished by a creamy coloured submedian area of the forewing and a short costal part of the median fascia; in ♂ genitalia it differs mainly in the much longer phallus and a higher number of cornuti arranged in two groups.

Description: ♂ (Fig. 14). Wing span 26.0 mm. Head creamy ferruginous, thorax similar with browner marks; labial palpus 2.5, cream with ferruginous scales laterally. Forewing rather slender, costa weakly convex, termen moderately oblique. Ground colour creamy suffused with pale ferruginous along dorsum and in posterior half of wing; dots and strigulae brown or blackish. Markings blackish consisting of large basal blotch, slender costal part of median fascia rather connecting the medio-subdorsal marking and subapical marking. Cilia creamy tinged ferruginous. Hindwing whitish, cream in distal third; cilia cream white.

♂ genitalia (Figs. 45, 46) as in *I. elegans* sp. n. but valva and sacculus more slender, phallus larger, slenderly extending ventro-terminally; cornuti arranged in two groups, one group consisting of 6, the other group of 3 fairly large spines.

♀ not known.

*Inape **uncina*** sp. n.

(Figs. 1, 39, 40)

Holotype ♂: "Ecuador: Zamora-Chinchipe-Prov. 22 km E

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Colour plate 1: Figs. 1–18: Adults of *Inape*. **Fig. 1:** *I. uncina* sp. n., holotype ♂. **Fig. 2:** *I. luteina* sp. n., holotype ♂. **Fig. 3:** *I. epiphanes* sp. n., holotype ♂. **Fig. 4:** *I. pompata* sp. n., holotype ♂. **Figs. 5, 6:** *I. laterosclera* sp. n., Fig. 5: holotype ♂, Fig. 6: paratype ♀ (GU-2183-V.P.). **Fig. 7:** *I. extraria* sp. n., holotype ♂. **Fig. 8:** *I. asymmetra* sp. n., holotype ♂. **Fig. 9:** *I. sinuata* Brown & Razowski, 2003, ♀ (GU-2191-V.P.). **Fig. 10:** *I. cateres* sp. n., holotype ♂. **Fig. 11:** *I. eparmuncus* sp. n., holotype ♂. **Fig. 12:** *I. homeotypa* sp. n., holotype ♂. **Fig. 13:** *I. homologa* sp. n., holotype ♂. **Fig. 14:** *I. incarnata* sp. n., holotype ♂. **Fig. 15:** *I. commoda* sp. n., holotype ♂. **Figs. 16, 17:** *I. geoda* sp. n., **Fig. 16:** holotype ♀, **Fig. 17:** ♀ (GU-1536-V.P.). **Fig. 18:** *I. elegans* sp. n., holotype ♂.

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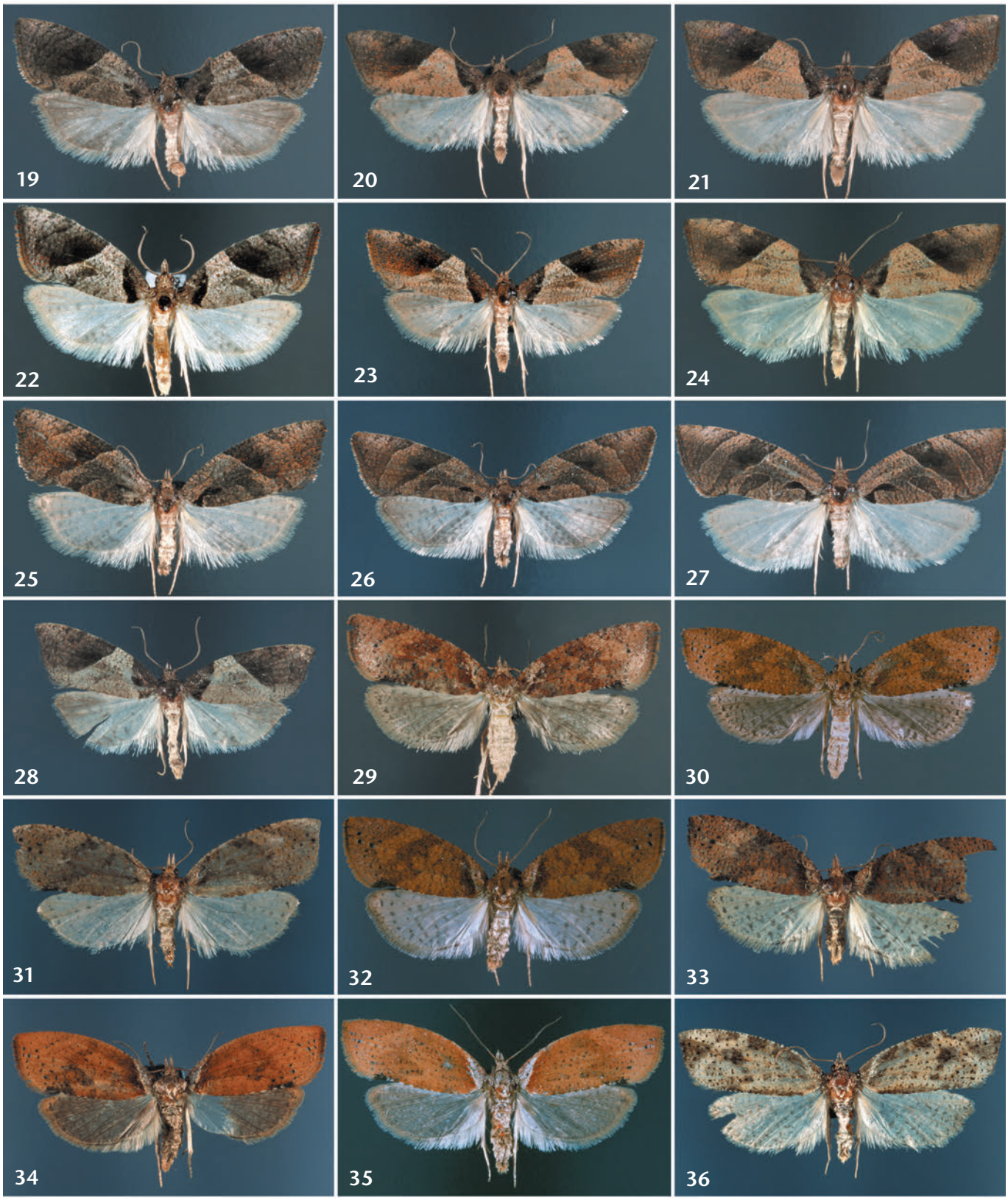

Colour plate 2: Figs. 19–36: Adults of *Inape*. **Fig. 19:** *I. sororia* sp. n., holotype ♂. **Fig. 20:** *I. sororia corryssa* ssp. n. holotype ♂. **Fig. 21:** *I. sororia lojana* ssp. n., holotype ♂. **Fig. 22:** *I. sororia* sp. n., paratype ♂ (GU-2409-V.P.). **Fig. 23:** *I. sororia corryssa* ssp. n., paratype ♂ (GU-1631-V.P.). **Fig. 24:** *I. sororia lojana* ssp. n., paratype ♂ (GU-2197-V.P.). **Fig. 25:** *I. sororia* sp. n., paratype ♀ (GU-1634-V.P.). **Fig. 26:** *I. sororia corryssa* ssp. n., paratype ♀ (GU-1703-V.P.). **Fig. 27:** *I. sororia lojana* ssp. n., paratype ♀ (GU-1709-V.P.). **Fig. 28:** *I. sororia corryssa* ssp. n., paratype ♂ (GU-2194-V.P.). **Fig. 29:** *I. pseudocelypha* sp. n., holotype, ♀. **Fig. 30:** *I. celypha* sp. n., holotype, ♀. **Figs. 31–33:** *I. homora* sp. n., **Fig. 31:** holotype ♀, **Fig. 32:** paratype ♀ (GU-1653-V.P.), **Fig. 33:** paratype ♀ (GU-2266-V.P.). **Figs. 34, 35:** *I. porpax* sp. n., **Fig. 34:** holotype ♀, **Fig. 35:** paratype ♀ (GU-1596-V.P.). **Fig. 36:** *I. polysparta* sp. n., holotype ♀.

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Loja, PN Podocarpus, San Francisco Ranger Stt, 2200 m, 3°59′15″ S, 79°5′37″ W, 9. x. 2002, sta 22, leg. Gielis & Pelz"; GU-2185-V.P. (CVPR, eventually SMFL).

Paratypes (in total 2 ♂♂): 2 ♂♂ (GU-2211-V.P.), same data as HT (CVPR).

Etymology: The name refers to the shape of one of the cornuti; Latin: uncinus — a hook. It is a noun in apposition.

Diagnosis: In this species the pattern is generalized; in ♂ genitalia the uncus slender; the sacculus similar to that in Ecuadoran *I. bicornis* Razowski, 1999 and *I. semuncus* Razowski, 1997 from Peru, but *I. uncina* sp. n. is distinct by the broad phallus and the heavily curved cornutus. See also diagnosis of *I. incarnata* sp. n.

Description: ♂ (Fig. 1). Wing span in holotype 18.5 mm, in paratypes 18.0–18.5 mm. Head and thorax rusty brown with brown marks; labial palpus 2.0, rusty brown. Forewing costa gently convex, termen weakly oblique, but beneath middle. Ground colour pale ferruginous tinged with grey in apical area from apex to mid-termen, strigulated with brown; creamy spot in middle of proximal edge of median fascia. Markings brown: Postbasal fascia dark brown, tapering costally, ill-defined at base; median fascia broad in costal half, atrophying in dorsal part, dark within median cell; submedian fascia from dorsum to this last; subterminal fascia oblique; spots in posterior parts of costa much stronger than dorsal spots. Cilia concolorous with ground colour, mixed brown in costal half of wing. Hindwing creamy brownish; strigulated brownish; cilia dirty cream.

Variation. In the paratypes the ground colour is darker ferruginous except for the posterior area of the wing especially from middle of median fascia to apex where darker brown; markings darker; median fascia extending towards tornus.

♂ **genitalia** (Figs. 39, 40). Uncus tapering terminally; valva rather slender, somewhat up-curved; sacculus short, rounded terminally; dorsal process of transtilla almost as long as sacculus; phallus broad with short terminal portion; cornuti one short weakly bent and one large strongly curved spines.

♀ not known.

Inape luteina sp. n.

(Figs. 2, 41, 42)

Holotype ♂: "Ecuador: Loja-Prov., 10 km SE Loja, PN Podocarpus, Cajanuma Ranger Stt, 2850 m, 4°6′58″ S, 79°10′19″ W, 7. x. 2002, sta 20, leg. Gielis & Pelz"; GU-1713-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the colouration of the forewing; Latin: lutea — yellow, -ina — a suffix defining diminition. It is defined as a noun in apposition.

Diagnosis: *Inape luteina* sp. n. is similar to *I. uncina* sp. n. as the shape of sacculus of valva shows, but distinct by its slender terminal part (reminiscent of that in *I. epiphanes* sp. n.) and the presence of a small dorsal prominence.

Description: ♂ (Fig. 2). Wing span 21.0 mm. Head pale ochreous cream, labial palpus 2.5, ochreous cream; thorax ochreous. Forewing costa gently convex; apex sharp; termen obliquely straight. Ground colour ochreous yellow suffused pale ferruginous yellow, sparsely sprinkled brownish; venation in major part yellowish. Markings pale ferruginous partially suffused with brownish consisting of traces of median and postmedian fasciae represented by elongate, diffuse marks. Cilia concolorous with ground colour. Hindwing whitish cream; apex tinged ochreous; cilia white cream.

♂ **genitalia** (Figs. 41, 42). Uncus as in *I. uncina* sp. n., socius somewhat smaller, processes of transtilla broader; valva shorter than in mentioned species, sacculus slender with subterminal thorn at dorsum; one long, very slender cornutus and two minute ones in vesica.

♀ not known.

Inape epiphanes sp. n.

(Figs. 3, 49, 50)

Holotype ♂: "Ecuador: Zamora-Chinchipe-Prov. 22 km E Loja, PN Podocarpus, San Francisco Ranger Stt, 2200 m, 3°59′15″ S, 79°5′37″ W, 9. x. 2002, sta 22, leg. Gielis & Pelz"; GU-2180-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the easily distinguishing colouration of the new species; Latin: epiphanes — easy to distinguish. It is defined as a noun in apposition.

Diagnosis: In *I. epiphanes* sp. n. the ground colour of the forewing is ochreous cream, markings dark brown, similar to *I. uncina* sp. n., but in ♂ genitalia *I. epiphanes* sp. n. is distinct by the broad phallus, the delicate, straight cornutus and a much shorter dorsal processes of the transtilla. From *I. bicornis* Razowski, 1999, also from Ecuador, the new species differs mainly in short processes of transtilla and a broad phallus.

Description: ♂ (Fig. 3). Wing span 15.0 mm. Head ochreous cream, labial palpus 2.8, ochreous cream, thorax darker with brownish bases of tegulae. Forewing more slender than in *I. uncina* sp. n., with more oblique termen. Ground colour ochreous cream; strigulation brownish; costal part of base of wing more brown. Markings dark brown: Postbasal fascia slender, atrophied dorsally; median fascia reaching beyond middle of wing followed by costal spots of which the first one is large; subterminal fascia reduced to a few spots. Cilia brownish cream, cream ochreous in tornal half of wing. Hindwing brownish cream; cilia creamer.

♂ **genitalia** (Figs. 49, 50). Uncus slender; sacculus broad to middle then slender; dorsal processes of transtilla broad,

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Figs. 37–54: *Inape,* ♂ genitalia. **Figs. 37, 38:** *I. extraria* sp. n., holotype, Fig. 37: genitalia (ventral view), Fig. 38: phallus. **Figs. 39, 40:** *I. uncina* sp. n., holotype, Fig. 39: genitalia (ventral view), Fig. 40: phallus. **Figs. 41, 42:** *I. luteina* sp. n., holotype, Fig. 41: genitalia (ventral view), Fig. 42: phallus. **Figs. 43, 44:** *I. elegans* sp. n., holotype, Fig. 43: genitalia (ventral view), Fig. 44: phallus. **Figs. 45, 46:** *I. incarnata* sp. n., holotype, Fig. 45: genitalia (ventral view), Fig. 46: phallus. **Figs. 47, 48:** *I. asymmetra* sp. n., holotype, Fig. 47: genitalia (ventral view), Fig. 48: phallus. **Figs. 49, 50:** *I. epiphanes* sp. n., holotype, Fig. 49: genitalia (ventral view), Fig. 50: phallus. **Figs. 51, 52:** *I. laterosclera* sp. n., holotype, Fig. 51: genitalia (ventral view), Fig. 52: phallus. **Figs. 53, 54:** *I. pompata* sp. n., paratype (GU-2220-V.P.), Fig. 53: genitalia (ventral view), Fig. 54: phallus. — Scale bar for each figure 1.0 mm.

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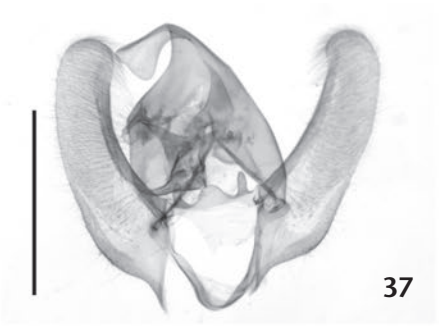
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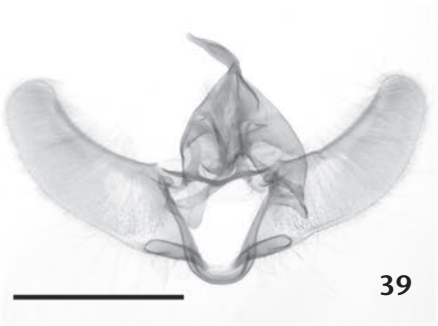
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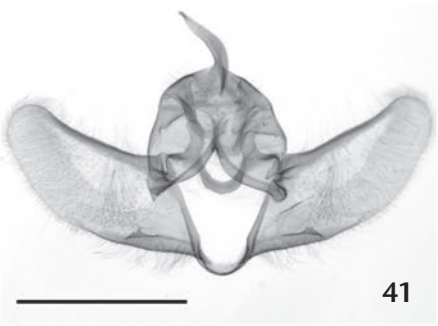
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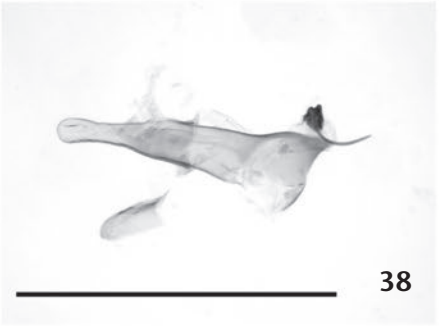
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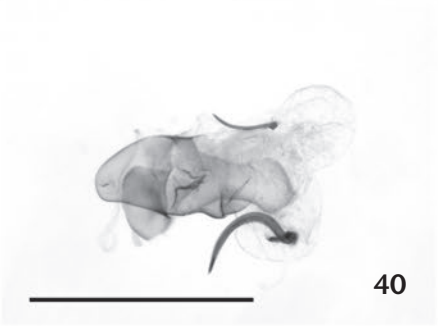
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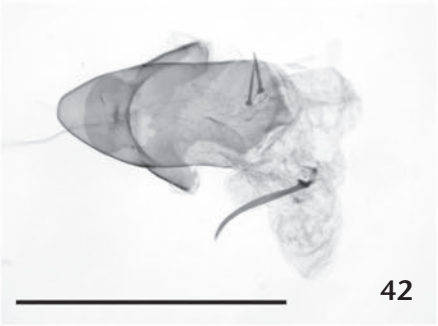
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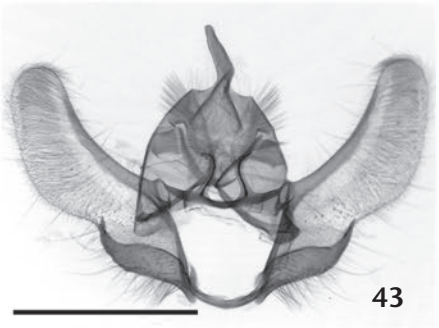
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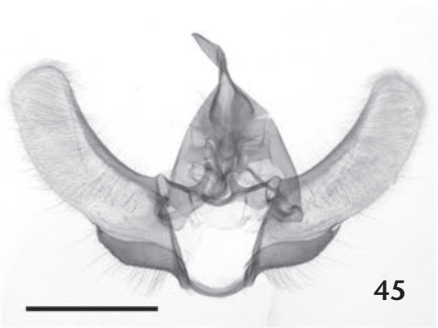
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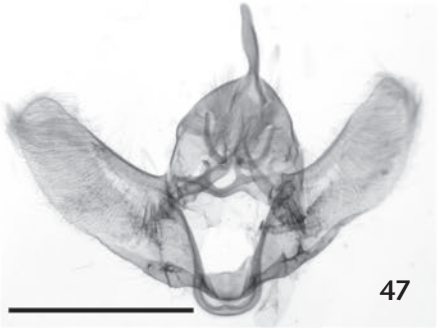
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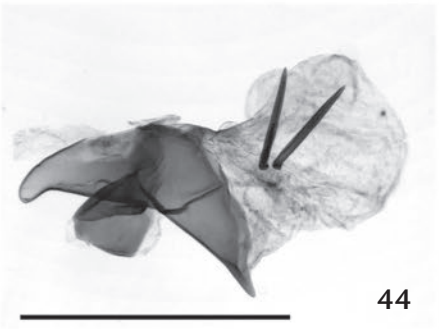
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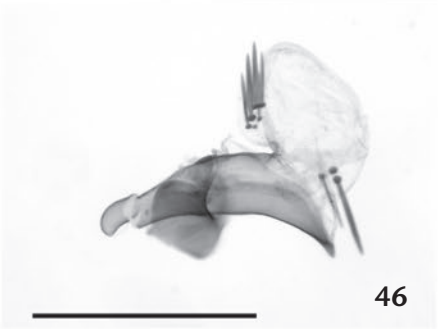
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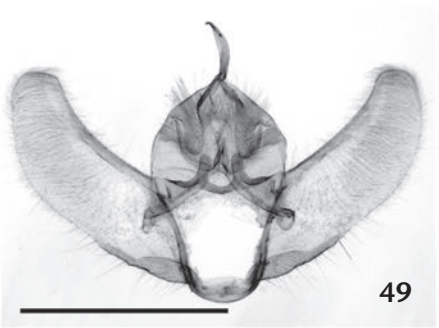
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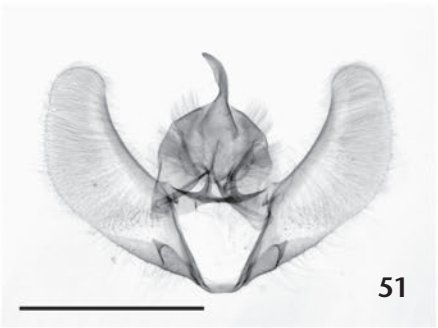
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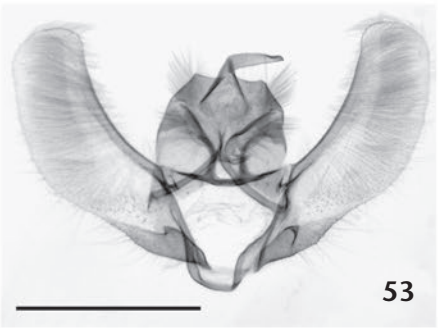
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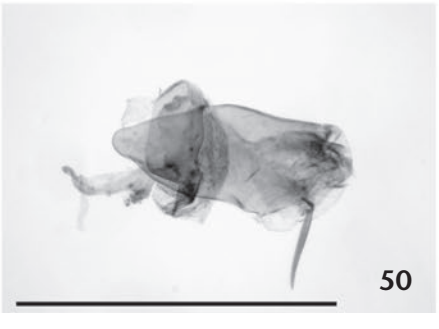
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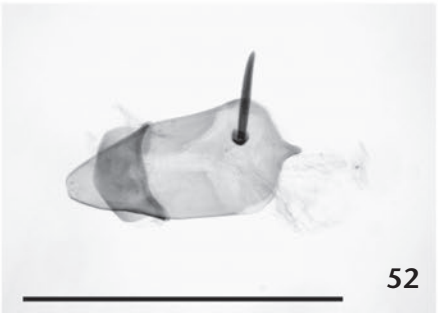
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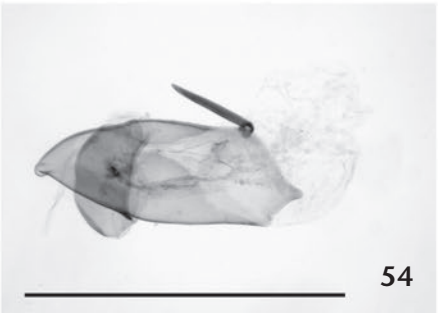
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short; phallus broad; single slender cornutus in vesica.

♀ not known.

Inape lateroscleraria sp. n.

(Figs. 5, 6, 51, 52, 73)

Holotype ♂: "Ecuador: Napo-Prov., 12 km SSE Cosanga, 2120 m, 0°37′26″ S, 77°48′51″ W, 24. x. 2002, sta 36, leg. Gielis & Pelz"; GU-2186-V.P. (CVPR, eventually SMFL).

Paratypes (in total 1 ♂, 3 ♀♀): 1 ♂ (GU-2181-V.P.), 3 ♀♀ (GU-2183-V.P., GU-2184-V.P.): same data as HT (CVPR).

Etymology: The specific epithet refers to the lateral position of the sclerites of the corpus bursae. It is defined as a noun in apposition.

Diagnosis: Ground colour of forewing brownish; in ♂ genitalia uncus and phallus of *I. laterosclera* sp. n. similar to those in *I. epiphanes* sp. n.; sacculus reminding that in *I. clarkeana* Brown & Razowski, 2002 and *I. papallactana* Razowski, 1999 but without terminal process. *Inape laterosclera* sp. n. is very closely related to *I. pompata* sp. n. The differentiating characters are given in the diagnosis of the latter species.

Description: ♂ (Fig. 5). Wing span in holotype 14.0 mm, in ♂ paratye 15.0 mm. Head light grey-brown, labial palpus 2.2, light grey-brown, laterally with sparse ferruginous scales; thorax brownish-grey, base of tegula brown. Forewing as in *I. epiphanes* sp. n. but with slightly less oblique termen at least in ♂. Ground colour light grey-brown with slight yellowish admixture and brown strigulation. Markings brown: Postbasal fascia incomplete or consisting of two spots; median fascia rather slender, more or less long, usually not extending beneath median cell; subtornal marking not connecting the former; other spots weak, slightly variable; subterminal marking absent. Cilia brownish-grey to brown, more cream towards tornus. Hindwing brownish cream with weak brownish strigulation; cilia cream.

♀ (Fig. 6). Larger than ♂ (wing span 19.0–19.5 mm), with forewing ground colour brownish-grey strigulated brown; subterminal marking ill-defined or absent.

♂ genitalia (Figs. 51, 52). Uncus and processes of transtilla slender; valva slightly broadening beyond sacculus; this last armed with postbasal triangular transverse process; phallus short; cornutus ca 3 times shorter than phallus.

♀ genitalia (Fig. 73). Proximal part of sterigma well sclerotized, rather short; sclerites of colliculum asymmetrical, one of them with numerous chiefly marginal spines.

Inape pompata sp. n.

(Figs. 4, 53, 54)

Holotype ♂: "Ecuador: Loja-Prov., 10 km SE Loja, PN Podocarpus, Cajanuma Ranger Stt, 2850 m, 4°6′58″ S, 79°10′19″ W, 8. x. 2002, sta 21, leg. Gielis & Pelz"; GS 2220-V.P. (CVPR, eventually SMFL).

Paratypes (in total 2 ♂♂): same locality as HT, but 7. x. 2002, sta 20 (GU-2182-V.P., GU-1724-V.P.) (CVPR).

Etymology: The specific epithet refers to the nice appearance of this species. Latin: pompatus — splendid. It is herewith defined as a noun in apposition.

Diagnosis: *Inape pompata* sp. n. is externally and in ♂ genitalia very similar to *I. laterosclera* sp. n.; ♂♂ of *I. pompata* sp. n. are larger, more robust, with wing span 17.0–18.0 mm (14.0–15.0 mm in *I. laterosclera* sp. n.), and the ground colour of the forewing is more rusty. ♂ genitalia as in *I. laterosclera* sp. n., but the valva is longer with a lenght/width-relation of 3.5 (in *I. laterosclera* sp. n. 3.1).

Description: ♂ (Fig. 4). Wing span 17.0–18.0 mm. Head grey-brown, labial palpus 2.2, grey-brown, laterally darker with ferruginous admixture; thorax brownish-grey, base of tegula brown. Forewing as in *I. laterosclera* sp. n. but ground colour grey-brown with strong rust admixture especially in outer third where ground colour completely rust. Markings as in *I. laterosclera* sp. n.; cilia brownish grey more cream towards tornus. Hindwing brownish cream with weak brownish strigulation; cilia cream.

♀: unknown.

♂ genitalia (Figs. 53, 54). As in *I. laterosclera* sp. n., but valva longer and only very slightly broadening beyond sacculus; phallus longer than in *I. laterosclera* sp. n. with one cornutus. In one paratype (GU-1724-V.P.) there is an additional smaller cornutus.

Remark: In ♂ genitalia this species is very close to *I. laterosclera* sp. n. The small but constant differences in ♂ genitalia and in habitus as well as their occurrence in different regions (northeastern respectivly southeastern part of Ecuador) and at different elevations seem to support their status as different species. In Euliini also other pairs of sibling species in these regions are known (e.g. *Punctapinella cerithiphora* Razowski & Pelz, 2004 and *P. lojana* Razowski & Pelz, 2004).

Inape homora sp. n.

(Figs. 31–33, 75)

Holotype ♀: "Ecuador: Loja-Prov, 10 km SE Loja, PN Podocarpus, Cajanuma Ranger Stt, 2850 m, 4°6′58″ S, 79°10′19″ W, 7. x. 2002, sta 20, leg. Gielis & Pelz"; GU-2257-V.P. (CVPR, eventually SMFL).

Paratypes (in total 3 ♀♀): 1 ♀ (GU-1653-V.P.), same data as HT; 2 ♀♀ (GU-2266-V.P, GU-2267-V.P.), same locality, but 8. x. 2002, sta 21 (CVPR).

Etymology: The name refers to the similarity and a possible close relation to *I. laterosclera* sp. n. and its allies; Greek: homora — neighbouring. It is defined as a noun in apposition.

Diagnosis: Externally *I. homora* sp. n. is similar to *I. laterosclera* sp. n. but in the ♀ genitalia sclerite of the collicu-

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Figs. 55–72: *Inape*, ♂ genitalia. **Figs. 55, 56:** *I. cateres* sp. n., holotype, Fig. 55: genitalia (ventral view), Fig. 56: phallus. **Figs. 57, 58:** *I. eparmuncus* sp. n., holotype, Fig. 57: genitalia (ventral view), Fig. 58: phallus. **Figs. 59, 60:** *I. homeotypa* sp. n., holotype, Fig. 59: genitalia (ventral view), Fig. 60: phallus. **Figs. 61, 62:** *I. homologa* sp. n., holotype, Fig. 61: genitalia (ventral view), Fig. 62: phallus. **Figs. 63, 64:** *I. commoda* sp. n., holotype, Fig. 63: genitalia (ventral view), Fig. 64: phallus. **Figs. 65, 66:** *I. sororia* sp. n., holotype, Fig. 65: genitalia (ventral view), Fig. 66: phallus. **Figs. 67, 68:** *I. sororia* sp. n., paratype (GU-2410-V.P.), Fig. 67: genitalia (ventral view), Fig. 68: phallus. **Figs. 69, 70:** *I. sororia corryssa* ssp. n., holotype, Fig. 69: genitalia (ventral view), Fig. 70: phallus. **Figs. 71, 72:** *I. sororia lojana* ssp. n., paratype (GU-2197-V.P.), Fig. 71: genitalia (ventral view), Fig. 72: phallus. — Scale bar for each figure 1.0 mm.

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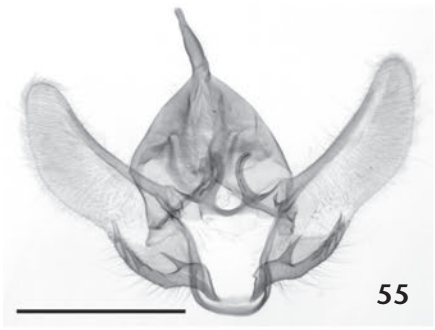
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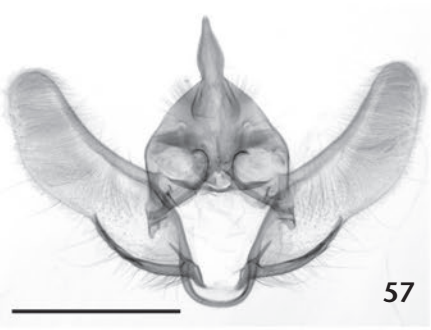
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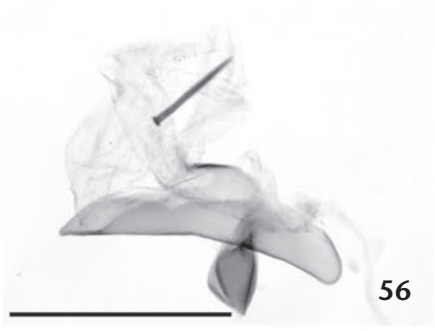
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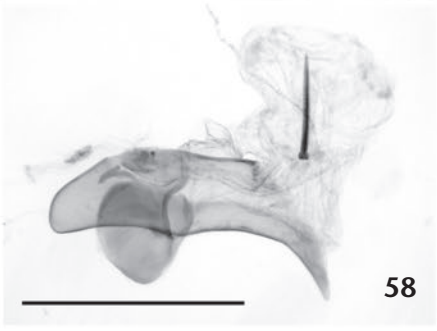
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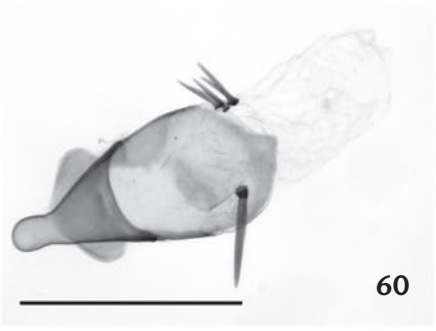
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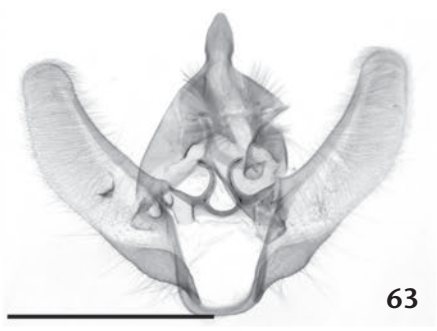
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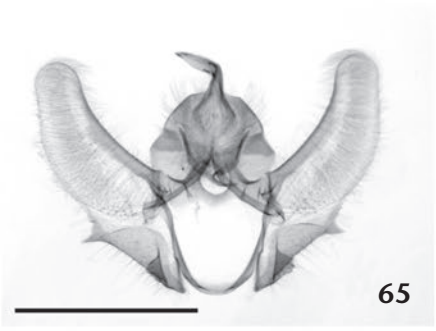
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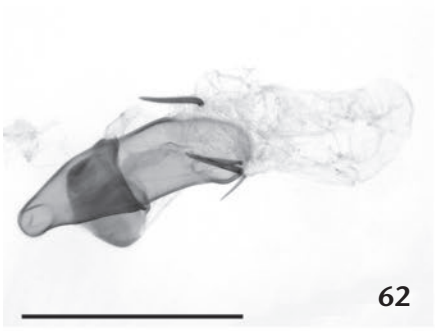
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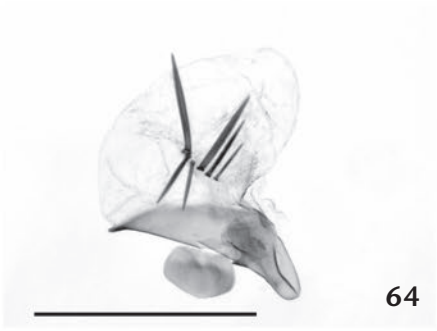
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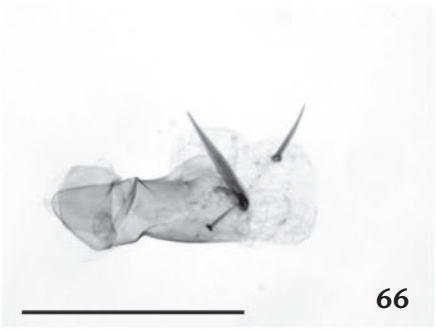
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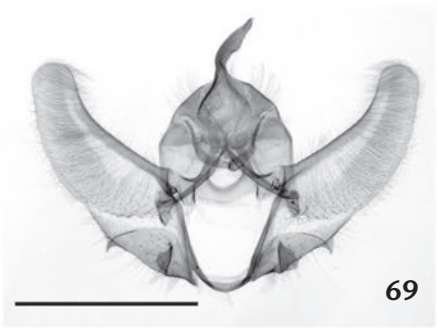
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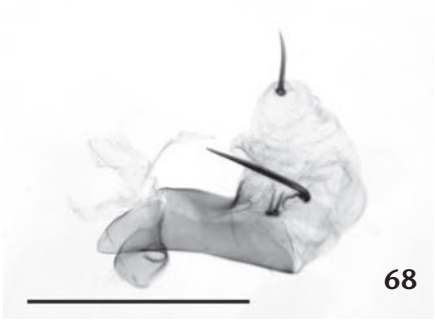
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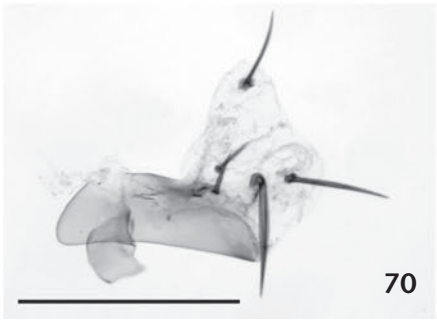
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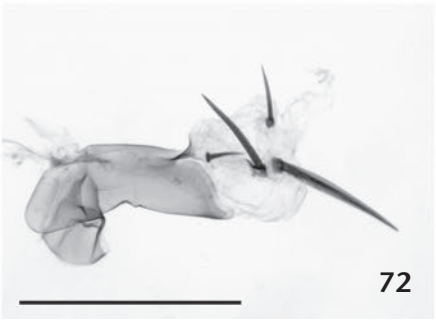
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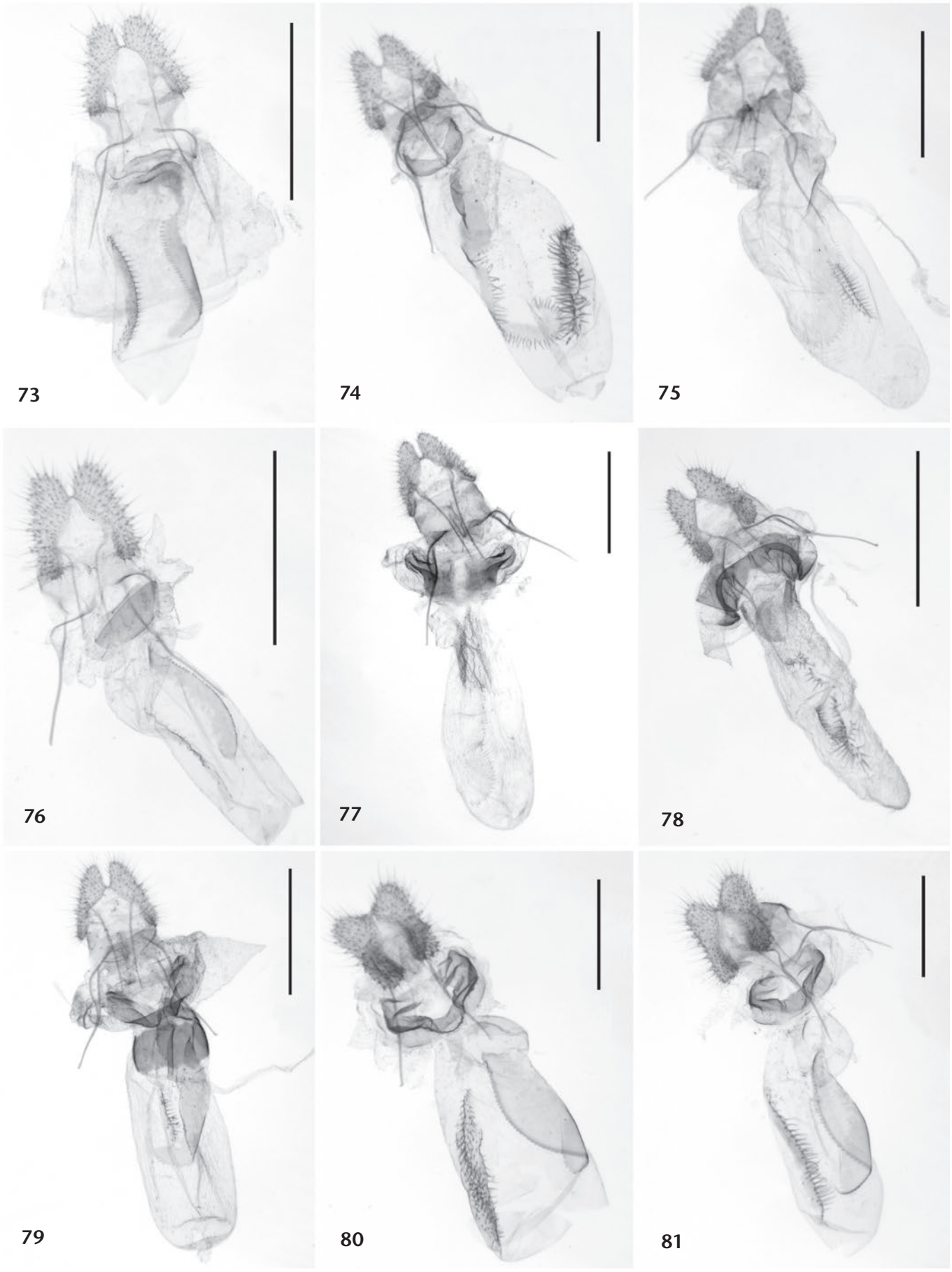

Figs. 73–81: *Inape,* ♀ genitalia (ventral view). **Fig. 73:** *I. laterosclera* sp. n., paratype (GU-2184-V.P.). **Fig. 74:** *I. porpax* sp. n., holotype. **Fig. 75:** *I. homora* sp. n., holotype. **Fig. 76:** *I. sinuata* Brown & Razowski, 2003 (GU-2191-V.P.). **Fig. 77:** *I. polysparta* sp. n., holotype. **Fig. 78:** *I. pseudocelypha* sp. n., holotype. **Fig. 79:** *I. celypha* sp. n., holotype. **Figs. 80, 81:** *I. geoda* sp. n., Fig. 80: paratype (GU-1536-V.P.), Fig. 81: holotype. — Scale bar for each figure 1.0 mm.

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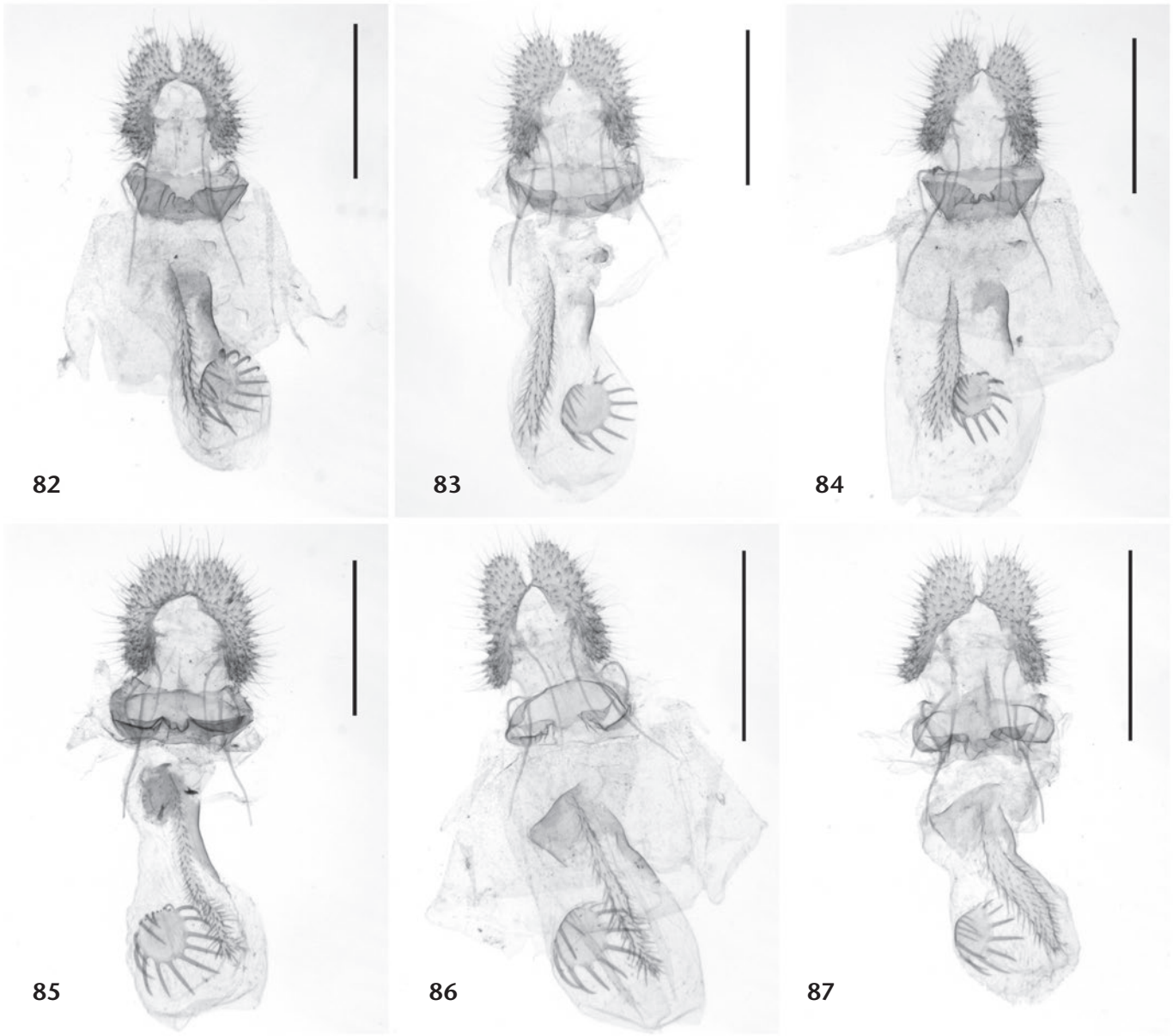

Figs. 82–87: *Inape sororia,* ♀ genitalia (ventral view). **Figs. 82–84:** *I. sororia sororia* ssp. n., Fig. 82: paratype (GU-1634-V.P.), Fig. 83: paratype (GU-1553-V.P.), Fig. 84: paratype (GU-1554-V.P.). **Fig. 85:** *I. sororia lojana* ssp. n., paratype (GU-1709-V.P.). **Figs. 86, 87:** *I. sororia corryssa* ssp. n., Fig. 86: paratype (GU-1703-V.P.), Fig. 87: paratype (GU-2209-V.P.). — Scale bar for each figure 1.0 mm.

lum weak; spiny sclerite short; lateral sclerite very large, minutely spined along one margin.

Description: ♂ unknown.

♀ (Figs. 31–33). Wing span 25.0 mm in HT, 25.0–25.5 mm in PT. Head yellow-brown, labial palpus 2.5 yellow-brown; thorax similarly coloured, base of tegula brown. Forewing costa uniformly convex, termen hardly concave beneath apex. Ground colour yellowish brown suffused and dotted with brown, paler in distal third than anteriorly to median fascia. Markings brown with paler ranges and darker dots: Postbasal fascia ill-defined, base ochreous; median fascia diffuse in dorsal area of wing; postmedian fascia indistinct, darker at costa, dotted with brown. Cilia concolorous with ground colour. Hindwing whitish cream, darker on periphery, with indistinct strigulation. In paratypes ground colour of forewing darker, more brown (in one paratype even postmedian interfascia somewhat suffused); base of wing ochreous creamy. Hindwing distinctly strigulated brownish grey.

♀ genitalia (Fig. 75). Sterigma rather short, moderately sclerotized; colliculum broad with weak sclerites; ductus bursae very short; corpus bursae with short spiny sclerite and large lateral sclerite.

Inape porpax sp. n.

(Figs. 34, 35, 74)

Holotype ♀: "Ecuador: Napo-Prov., 15 km SE Cosanga, Cocodrilo, 1850 m, 0°38′56″ S, 77°47′34″ W, 30. IX. 2002, sta 12, leg. Gielis & Pelz"; GU-2251-V.P. (CVPR, eventually SMFL).

Paratypes (2 ♀♀): Ecuador: Napo-Prov., 12 km SSE Cosanga, 2120 m, 0°37′26″ S, 77°48′51″ W, 24. x. 2002, sta 36, leg. Gielis & Pelz (GU-1596-V.P., GU- 1597-V.P.) (CVPR).

Etymology: The name refers to the shape of the sclerite in the corpus bursae; Latin: porpax — loop. It is a noun in apposition.

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Diagnosis: Externally *I. porpax* sp. n. is similar to *I. celypha* sp. n., whilst the ♀ genitalia are similar to those of *I. homora* sp. n. However, *I. porpax* sp. n. is easily distinguished by the very long lateral sclerite and spiny sclerite of ductus bursae.

Description: ♂ not known.

♀ (Figs. 34, 35). Wing span in holotype 26.0 mm, in paratypes 24.0 mm. Head pale ferruginous; labial palpus 2.5, pale ferruginous; thorax browner, with darker base of tegula. Costa of forewing distinctly convex, termen to middle hardly oblique. Ground colour ochreous-ferruginous with brownish suffusions; brown dots present; markings ill-defined in form of slender median fascia marked dark brown at tornus and traces of fasciae in subterminal part of wing; base of wing creamy suffused grey proximally, edged dark brown distally. Cilia concolorous with ground colour, browner from apex to mid-termen. Hindwing brownish grey; strigulation much darker. Cilia ochreous creamy. Variation: Basal part of wing whitish tinged grey, indistinctly edged brownish or without distal edging; markings and maculation more or less weak.

♀ genitalia (Fig. 74) as in *I. homora* sp. n. but with distinctly sclerotized proximal part of sterigma and elongate sclerite of ductus bursae extending in a curved fascia to proximal part of corpus; spiny sclerite longer than in the mentioned species, with very strong spinulation.

Inape celypha sp. n.

(Figs. 30, 79)

Holotype ♀: "Ecuador: Napo-Prov., 10 km SSE Cosanga, 2180 m, 0°37′13″ S, 77°49′29″ W, 23. x. 2002, sta 35, leg. Gielis & Pelz"; GU-1535-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the colouration of the forewings which when in rest remind a hask, Latin: celypha – hask. It is a noun in apposition.

Diagnosis: *Inape celypha* sp. n. is externally similar to *I. homora* sp. n. but distinguished by the darker greyish hindwings; in ♀ genitalia the sclerite of the ductus bursae of *I. celypha* sp. n. is stronger than in *I. xerophanes* from which it also differs in having a very small spiny sclerite of corpus bursae.

Description: ♂ unknown.

♀ (Fig. 30). Wing span 25.0 mm; head and thorax pale ferruginous; labial palpus 2.5, pale ferruginous. Apex of forewing short, rather rounded, termen slightly oblique, straight to middle. Ground colour cinnamon suffused brownish to before middle, hardly mixed ochre in distal third dotted dark brown. Markings brownish: Postbasal fascia brown, base of wing brownish creamy; median fascia slender, connected with subtornal marking; subapical blotch weak, diffuse. Cilia concolorous with posterior part of wing suffused brown in costal half of termen. Hindwing greyish, more creamy on periphery; strigulation dark grey; cilia greyish.

♀ genitalia (Fig. 79). Sterigma rather short; sclerite of ductus bursae large, similar to that in *I. xerophanes* but situated more anteriorly; *Inape celypha* sp. n. is, however, distinct by small spiny sclerite of corpus bursae.

Inape pseudocelypha sp. n.

(Figs. 29, 78)

Holotype ♀: "Ecuador: Pichincha-Prov., 7 km NW Mindo, Sachatamia, 1700 m, 0°1′35″ S, 78°45′34″ W, 8.–11. xii. 2004, leg. Volker Pelz"; GU-2547-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the similarity of this species to *I. celypha* sp. n., Greek: pseudos – false. It is a noun in apposition.

Diagnosis: *Inape pseudocelypha* sp. n. is externally similar to *I. celypha* sp. n. and *I. porpax* sp. n., but with less convex forewing costa and in ♀ genitalia distinct by smaller sclerites of the bursa copulatrix; the ♀ genitalia of *I. pseudocelypha* sp. n. are close to *I. homora* sp. n. but with weaker sclerites of corpus bursae and broad, well sclerotized sterigma.

Description: ♂ unknown.

♀ (Fig. 29). Wing span 20.0 mm; Head and thorax pale cinnamon brownish; labial palpus 2.5, pale cinnamon brownish. Costa gently curved outwards, termen fairly long. Ground colour pale cinnamon dotted and partially suffused with ferruginous; some other dots and strigulae brown. Basal area occupied by a creamy blotch edged with brown distally; other markings ferruginous brownish, rather indistinctly edged, sparsely dotted with brown, tinged with blackish brown at tornus. Cilia concolorous with ground colour with brownish median line. Hindwing brownish cream with diffuse, more grey strigulation; cilia paler than wing.

♀ genitalia (Fig. 78). Sterigma rather short, broad with distinct arc-shaped sclerite ventrally; sclerites of ductus bursae small; spiny sclerite of bursa copulatrix weak.

Inape cateres sp. n.

(Figs. 10, 55, 56)

Holotype ♂: "Ecuador: Azuay-Prov., PN Cajas, Laguna Llaviuco, 3225 m 2°50′38″ S, 79°8′35″ W, 5. x. 2002, sta 17, leg. Gielis & Pelz"; GU-1679-V.P. (CVPR, eventually SMFL).

Paratype (1 ♂): same data as HT (CVPR).

Etymology: The species name refers to the structure of the sacculus; Latin: cateres – armed. It is defined as a noun in apposition.

Diagnosis: This species externally is similar to *I. geoda* sp. n., *I. homologa* sp. n. and *I. incarnata* sp. n. From the two former species it differs by a narrower forewing and the lighter greyish cream hindwings. *I. incarnata* sp. n. is easily distuinguished from *I. cateres* sp. n. by the dark basal blotch of the forewing; the ♂ genitalia are similar to *I. eparmuncus* sp. n., but differing in the slender uncus not broadening postbasally.

Description: ♂ (Fig. 10). Wing span 21.5 mm; head and thorax ochreous cream; labial palpus 2.0, grey. Forewing somewhat narrower than in *I. homologa* sp. n. Ground colour light grey, mixed with darker grey scales, light cream along posterior half of costal part of median fascia and last radial veins. Markings dark grey brown with dark

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brown spots consisting of costal half of median fascia and subterminal triangle. Cilia concolorous with ground colour, darker beneath apex. Hindwing light cream; weakly strigulated brown-grey; cilia light cream.

♂ **genitalia** (Figs. 55, 56). Uncus slender, tapering terminally; valva beyond sacculus rather slender; sacculus convex postbasally armed with distinct dorsopostbasal thorn, with several spines in distal part; dorsal processes of transtilla slender, curved; phallus as long as costa of valva; single slender cornutus in vesica.

♀ unknown.

Inape commoda sp. n.

(Figs. 15, 63, 64)

Holotype ♂: "Ecuador: Napo-Prov., 10 km SSE Cosanga, 2180 m, 0°37′13″ S, 77°49′29″ W, 23. x. 2002, sta 35, leg. Gielis & Pelz"; GU-2389-V.P. (CVPR, eventually SMFL).

Etymology: The name refers to the similarity of this species to *I. epiphanes* sp. n.; Latin: commodus – the same. It is defined here as a noun in apposition.

Diagnosis: Externally this species resembles *I. epiphanes* sp. n. from which it differs in the strongly reduced forewing markings; in ♂ genitalia the sacculus of *I. commoda* sp. n. is much shorter and broader than in *I. epiphanes* sp. n. and the phallus is somewhat longer.

Description: ♂ (Fig. 15). Wing span 15.0 mm. Head and thorax ochreous, the latter brown proximally; labial palpus 2.0. Forewing costa convex, termen fairly oblique. Ground colour pale ochreous cream with orangeous suffusions and black-brown dots; markings concolorous, ill-defined, consisting of traces of median fascia best visible in middle of wing. Cilia worn. Hindwing cream; strigulation indistinct; cilia cream.

♂ **genitalia** (Figs. 63, 64). Uncus rather short, fairly broad; valva slender; sacculus simple, short, rather broad; dorsal processes of transtilla long; phallus extending ventroterminally; cornuti eight unequally large spines.

♀ not known.

Inape eparmuncus sp. n.

(Figs. 11, 57, 58)

Holotype ♂: "Ecuador: Zamora-Chinchipe-Prov. 22 km E Loja, PN Podocarpus, San Francisco Ranger Stt, 2200 m, 3°59′15″ S, 79°5′37″ W, 9. x. 2002, sta 22, leg. Gielis & Pelz"; GU-1747-V.P. (CVPR, eventually SMFL).

Etymology: The specific epithet refers to the shape of the uncus; Latin: eparma – swelling. It is a noun in apposition.

Diagnosis: Externally *I. eparmuncus* sp. n. is rather similar to *I. cateres* sp. n. and *I. geoda* sp. n., differing from the former species by the much darker grey hindwings. *I. geoda* sp. n. differs from *I. eparmuncus* sp. n. by the white fascia from beyond middle to apex of forewing. ♂ genitalia of *I. eparmuncus* sp. n. similar to *I. cateres* sp. n., but the uncus of *I. eparmuncus* sp. n. is distinctly broadening postbasally.

Description: ♂ (Fig. 11). Wing span 21.0 mm. Head brownish cream, thorax darker brown, labial palpus 2.0, dark brown with some rusty scales. Forewing fairly broad, termen not oblique beneath apex. Ground colour whitish grey with white diffuse spots especially in distal half of wing and pale ochreous brownish suffusions chiefly in basal half; strigulation brownish grey and grey; base of wing and partially termen suffused brownish ochre or grey, respectively. Markings: Costal spots and costal half of median fascia dark brown, similar spot near middle of wing, all on pale rust suffusions; dorsal spots brownish, smaller than costal spots. Cilia brownish, brown between apex and mid-termen, greyer in tornal area. Hindwing greyish tinged brownish in apex area; strigulation weak. Cilia grey-white.

♂ **genitalia** (Figs. 57, 58). Uncus strong, broadest postbasally, tapering terminally; valva as in *I. cateres* sp. n.; sacculus less convex, dorsobasal thorn more slender, more proximal, spines of posterior part weaker; dorsal processes of transtilla slender, strongly curved; phallus and cornutus slightly shorter than in *I. cateres* sp. n.

♀ unknown.

Inape homeotypa sp. n.

(Figs. 12, 59, 60)

Holotype ♂: "Ecuador: Loja-Prov, 10 km SE Loja, PN Podocarpus, Cajanuma Ranger Stt, 2850 m, 4°6′58″ S, 79°10′19″ W, 7. x. 2002, sta 20, leg. Gielis & Pelz"; GU-1715-V.P. (CVPR, eventually SMFL).

Paratype (1 ♂): same data as HT (CVPR).

Etymology: The specific name refers to a similarity to other species of *Inape* in the spinulation of the end of the sacculus; Greek: homos – similar, typus – contents. It is a noun in apposition.

Diagnosis: The ♂ genitalia of *Inape homeotypa* sp. n. are comparable to those of *I. eparmuncus* sp. n., but easily distinguished by much broader uncus and distinctly angulate sacculus without dorsobasal thorn.

Description: ♂ (Fig. 12). Wing span 22.0 mm. Forewing rather slender with termen slightly oblique. Head brownish, thorax similar in colour, concolorous anteriorly. Ground colour creamy brown, partially suffused and sprinkled with brown, strigulation sparse, concolorous; base of wing suffused brown; costal spots concolorous. Markings rudimentary, diffuse, brownish, represented mainly by costal portion of median fascia. Cilia worn, concolorous with ground colour. Hindwing whitish tinged creamy in apex area; cilia white.

♂ **genitalia** (Figs. 59, 60). Uncus very broad postbasally, then gradually tapering terminad; socius fairly broad; valva beyond sacculus slender; sacculus angulate with strong spines in distal half; processes of transtilla slender; phallus in dorsal aspect broad postmedially; one longer and four much shorter cornuti present.

♀ unknown.

Inape homologa sp. n.

(Figs. 13, 61, 62)

Holotype ♂: "Ecuador: Loja-Prov, 10 km SE Loja, PN Podocarpus, Cajanuma Ranger Stt, 2850 m, 4°6′58″ S, 79°10′19″ W, 7. x. 2002, sta 20, leg. Gielis & Pelz"; GU-1708-V.P. (CVPR, eventually SMFL).

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Etymology: The name concerns the similarity with *I. homeotypa* sp. n.; Greek: HOMOS – similar; LOGOS – science. It is a noun in apposition.

Diagnosis: This species is very similar to *I. homeotypa* sp. n., with similar ♂ genitalia, however, easily distinguished by the shape of the uncus which in *I. homologa* sp. n. is shorter and broader postbasally, the more slender phallus, and the lower number (two only) of cornuti.

Description: ♂ (Fig. 13). Wing span 22.0 mm. Head and thorax ochreous rusty; labial palpus 2.0, base of tegula brown. Forewing somewhat broader than in *I. homeotypa* sp. n. Ground colour brownish, brownish creamy along posterior half of costal part of median fascia and last radial veins; base of wing brownish; spots along costa and termen similarly coloured. Markings brown-grey with dark brown spots consisting of costal half of median fascia and subterminal triangle. Cilia concolorous with ground colour, browner beneath apex. Hindwing brownish creamy; strigulation more brown-grey; cilia dirty creamy.

♂ genitalia (Figs. 61, 62). Uncus short, strongly expanding beyond base, then subtriangular; socius rather slender; sacculus broad, with distinct caudal angle marked with series of spines; phallus rather slender; two moderatly sized cornuti in vesica.

♀ unknown.

Inape polysparta sp. n.

(Figs. 36, 77)

Holotype ♀: "Ecuador: Napo-Prov., 10 km SSE Cosanga, 2180 m, 0°37′13″ S, 77°49′29″ W, 23. x. 2002, sta 35, leg. GIELIS & PELZ"; GU-2256-V.P. (CVPR, eventually SMFL).

Etymology: The species name refers to the maculation of the forewing; Greek: POLY – numerous, SPARTA – scattered. It is defined as a noun in apposition

Diagnosis: *Inape polysparta* sp. n. is very close to *I. homora* sp. n. but easily distinguished in ♀ genitalia by broad sterigma and small, posterior sclerites of corpus bursae.

Description: ♂ unknown.

♀ (Fig. 36). Wing span 27.0 mm. Head pale yellowish brown; thorax more brown especially the tegula; labial palpus 2.3. Forewing similar to that in *I. homora* sp. n.; ground colour dirty yellow with slight admixture of brownish grey, densely dotted dark brown. Markings ill-defined, dark brown, consisting of a trace of basal blotch, median fascia represented by costal and median blotches followed by subapical spot, a part of rudiments of the postmedian fascia. Cilia (rubbed) probably concolorous with ground colour. Hindwing creamy, tinged ochre at apex; strigulation brownish grey; cilia creamy.

♀ genitalia (Fig. 77). Proximal part of sterigma extending laterally beyond middle; sclerites of ductus bursae weak, extending towards corpus bursae.

Inape sinuata BROWN & RAZOWSKI, 2003

(Figs. 9, 76)

Material examined: 1 ♀: Ecuador: Zamora-Chinchipe-Prov. 22 km E Loja, PN Podocarpus, San Francisco Ranger Stt, 2200 m, 3°59′15″ S, 79°5′37″ W, 9. x. 2002, sta 22, leg. GIELIS & PELZ; GU-2191-V.P. (CVPR).

This species was known to date only from the ♀ HT and 2 ♂♂ PTs, all from Bolivia. As the abdomina are lost in both paratypes, the ♂ genitalia remain unknown. The structure of the ♀ genitalia allows to suppose that *I. sinuata* is closely related to *I. laterosclera* sp. n.

Inape asymmetra sp. n.

(Figs. 8, 37, 38)

Holotype ♂: "Ecuador: Azuay-Prov. 22 km SO Gualaceo > Plan de Milagro, Cordillera Zapote Naida, 3300 m, 6. x. 2000, leg. Volker PELZ"; GU-1033-V.P. (CVPR, eventually SMFL).

Paratypes: 2 ♂♂, same data as HT (GU-1027-V.P.); (CVPR).

Etymology: The name refers to the asymmetry of the sacculus. Greek: A (prefix) – not; SYM – common; METROS – measure. It is defined as a noun in apposition.

Diagnosis: *Inape asymmetra* sp. n. is comparable to *I. pompata* sp. n. and its allies but quite different externally by a transverse strigulation of the forewing forming more or less complete lines; the ♂ genitalia of the new species differ from *I. pompata* sp. n. in a larger uncus, the sacculus of the valva with two thorns, and in the asymmetry of the sacculi.

Description: ♂ (Fig. 8). Wing span 25.5 mm. Head and thorax brown, labial palpus 2.5, tinged rust. Forewing broad, with costa distinctly convex. Ground colour creamy ferruginous, more brownish in distal half of wing, densely strigulated with brown; some strigulae forming more of less complete transverse lines. Cilia brownish with slight ferruginous hue. Hindwing dirty cream with slight ochreous brownish admixture in distal area; strigulation pale, greyish; cilia concolorous with ground colour.

♂ genitalia (Figs. 37, 38). Uncus long; valva fairly broad; sacculus with a larger submedian and a smaller postmedian thorn, asymmetric, the posterior one much larger in the right sacculus, minute in the left one; a group of longer spines in the proximal part of the disc; phallus rather short; cornuti arranged in two groups: the anterior group represented by a single strong spine, the posterior group consisting of 12 much shorter, capitate spines.

♀ not known.

Inape geoda sp. n.

(Figs. 16, 17, 80, 81)

Holotype ♀: "Ecuador: Napo-Prov., 10 km SSE Cosanga, 2180 m, 0°37′13″ S, 77°49′29″ W, 23. x. 2002, sta 35, leg. GIELIS & PELZ"; GU-2168-V.P. (CVPR, eventually SMFL).

Further material examined (no PT): 1 ♀, Ecuador: Napo-Prov., 15 km SE Cosanga, Cocodrilo, 1850 m, 0°38′56″ S, 77°47′34″ W, 27. x. 2002, sta 39, leg. GIELIS & PELZ, GU-1536-V.P. (CVPR).

Etymology: The name refers to the general coloration of the forewing; Latin: GEODES – sallow. It is defined as a noun in apposition.

Diagnosis: Externally this new species is similar to *I. homologa* sp. n. and *I. incarnata* sp. n.; in ♀ genitalia *I. geoda* sp. n. is near to *I. laterosclera* sp. n., but differs in much broader lateral sclerite of corpus bursae.

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Description: ♂ unknown.

♀ (Fig. 16). Wing span in HT 28.0 mm. Head pale rust, labial palpus 2.2, grey-brown; thorax ochreous tinged grey-brown proximally, base of tegula browner. Costa of forewing weakly convex; termen slightly oblique, bent. Ground color grey-brown suffused whitish in tornal fourth of wing and less so along dorsum basad and at costa subapically; submedian interfascia tinged ochre; strigulation grey-brown, spots along wing edges darker; a fascia from beyond middle of wing to apex whitish, mixed creamy proximally. Markings dark brown consisting of costal half of median fascia and subapical blotch; subterminal marking paler, rather weak. Cilia brownish, paler towards tornus. Hindwing creamy grey; strigulation weak. Cilia rather concolorous with wing.

♀ genitalia (Figs. 80, 81). Sterigma small with rounded proximal corners; sclerite of ductus bursae extending towards proximal portion of corpus bursae; spined sclerite large.

Variation. The second ♀ at hand (Fig. 17) is smaller (wing span 25.0 mm) than HT with forewing ground colour slightly mixed with ochreous. This specimen is therefore not included as paratype, but illustrated for reasons of comparison.

The following specimens were collected at five localities in three different mountain chains of the Ecuadoran Andes. There are slight but constant differences mainly in genitalia between these three population-groups, which may represent allopatric species; but at present it seems more appropriate to treat them as conspecific until more material also from further regions is at hand. Because of the mentioned constant differences we are treating them as subspecies. The sexes were associated by their common occurence at all places and their overall similarity. Therefore their combination remains equivocally until more about the biology of the taxa is known. A slight sexual dimorphism is present (to date a phenomenon only rarely encountered in Euliini).

Inape sororia sp. n.

(19, 22, 25, 65–68, 82–84)

Holotype ♂: "Ecuador: Napo-Prov., 5 km W Papallacta, Laguna Papallacta, 3430 m, 0°22′27″ S, 78°9′50″ W, 28. x. 2002, sta 40, leg. Gielis & Pelz"; GU-1633-V.P. (CVPR, eventually SMFL).

Paratypes (in total 5 ♂♂, 5 ♀♀): 3 ♀♀ (GU-1634-V.P., GU-1553-V.P., GU-1554-V.P.), same data as HT (CVPR); 1 ♀ same data as HT (ISEZ); 1 ♀ same data as HT (PUCE); 3 ♂♂ (GU-2409-V.P., GU-2410-V.P., GU-2411-V.P.): Ecuador: Napo-Prov., 1 km W Papallacta, 3350 m 0°22′25″ S, 78°2′10″ W, 21.–23. xii. 2004, leg. Volker Pelz (CVPR); 1 ♂ same data (ISEZ); 1 ♂ same data (PUCE).

Etymology: The specific name refers to the similarity to some of its congeners both in facies and genitalia., e.g. to *I. clarkeana*; Latin: sororia — sisterly. It is defined as a noun in apposition.

Diagnosis: ♂ genitalia of *I. sororia* sp. n. resemble those in *I. clarkeana* but differ in anterior position of the lobe of sacculus and the absence of a very long, curved cornutus.

Description: Dimorphic species.

♂ (Fig. 19, 22). Wing span 19.6 mm (18.5–20.5 mm; n = 6), in holotype 20.5 mm. Head and thorax brownish grey, labial palpus 2.5 in ♂, brownish grey with some red-brown scales laterally, base of tegula browner. Costa of forewing weakly convex, termen slightly oblique, rather straight. Ground colour pale brownish creamy with ochreous admixture; strigulation weak, brownish. Markings sepia-brown: Basal blotch atrophying proximally; median fascia distinct proximally, diffuse posteriorly, not reaching dorsum; brownish lines or strigulae in costal part of suffusion; subtornal marking ill-defined. Cilia pale brownish, more ochreous in tornal portion. Hindwing whitish cream, mixed brownish at apex, with ill-defined strigulation.

♀ (Fig. 25). Wing span 23.6 mm (21.0–24.5 mm; n = 5). Labial palpus longer than in ♂ 2.8. Termen of forewing somewhat sinuate beneath apex; ground colour suffused brownish or tinged pale ferruginous; dorsal parts of markings present; subterminal fascia more or less distinct. Cilia brownish. Hindwing white creamy darker towards apex, strigulation rather grey.

♂ genitalia (Figs. 65–68). Similar to *I. clarkeana* but sacculus with terminal process and a large postbasal lobe; phallus stout; cornuti 1 rather strong and 2–3 much smaller spines.

♀ genitalia (Figs. 82–84). Sterigma short with broad anteostial portion; sclerite of colliculum atrophying; median sclerite of ductus bursae short, slender proximally; spiny sclerite long, accompanied by rounded sclerite situated in middle of corpus bursae crowned with long spines.

Inape sororia is found to have three subspecies; besides the nominotypical one the following two:

Inape sororia corryssa ssp. n.

(Figs. 20, 23, 26, 28, 69, 70, 86, 87)

Holotype ♂: "Ecuador: Azuay-Prov., PN Cajas, Laguna Llaviuco, 3225 m, 2°50′38″ S, 79°8′35″ W, 5. x. 2002, sta 17, leg. Gielis & Pelz"; GU-1630-V.P. (CVPR, eventually SMFL).

Paratypes (in total 6 ♂♂, 4 ♀♀): 3 ♂♂ (GU-1631-V.P., GU-2195-V.P.), 3 ♀♀ (GU-1703-V.P., GU-2240-V.P.): same dates as HT; 3 ♂♂ (GU-2196-V.P.), 1 ♀ (GU-2209-V.P.): same locality but 12. x. 2002, sta 26, leg. Gielis & Pelz; 2 ♂♂ (GU-2232-V.P., GU-2194-V.P.): Ecuador: Azuay-Prov., 25 km S Cuenca, Pto. de Tinajilla, 3320 m, 3°9′46″ S, 79°1′30″ W, 6. x. 2002, sta 18, leg. Gielis & Pelz (CVPR).

Etymology: The epithet refers to the heavily spined sclerites of bursa copulatrix; Latin: corryssa — armed. It is defined as a noun in apposition.

Diagnosis: *Inape sororia corryssa* ssp. n. is very close to the nominotypical subspecies but with creamy submedian interfascia at least in costal area of wing and very distinct basal blotch in ♂. In ♂ genitalia *I. s. corryssa* ssp. n. differs mainly in the higher number (3 strong, rather large and 2-4 small ones) of cornuti, whose positions in the everted vesica are also different; ♀♀ of this subspecies characterize with large sclerite of ductus bursae.

Description: ♂ (Figs. 20, 26, 28). Wing span 19.4 mm

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(18.0–21.5 mm; n = 7). Head, labial palpus, thorax and shape of wings as in the nominotypical subspecies. Ground colour of forewing pale brownish creamy, slightly suffused with brownish dorsally, with rust posteriorly; strigulation fine, brown; brown suffusion from median fascia to terminal area of wing. Markings dark brown consisting of postbasal fascia or basal blotch, costal half of median fascia and postmedian marks at costa. Cilia brownish, more creamy at apex, occasionally tinged with rusty colour. Hindwing white cream, darker apically, with weak grey strigulation; cilia whitish.

♀ (Fig. 23). Wing span 21.0 mm (20.0–22.0 mm; n = 4). Ground colour of ♀ forewing pale brownish; markings brown, rather weak; basal blotch ill-defined, median fascia reaching tornus, postmedian fascia weak or in form of a line (anterior edge) followed by a weak suffusion; hindwing darker than in ♂.

♂ **genitalia** (Figs. 69, 70) as in *I. s. sororia* ssp. n., but ventral edge of uncus distinctly convex and 3 longer, inequally sized, and 2–4 small cornuti present. Sacculus with stronger, more bent terminal process and a larger postbasal lobe.

♀ **genitalia** (Figs. 86, 87). Sclerite of ductus bursae broadly extending into a slender lateral sclerite; crowned sclerite distinct; spiny sclerite somewhat variable.

Inape sororia lojana ssp. n.

(Figs. 21, 24, 27, 71, 72, 85)

Holotype ♂: "Ecuador: Loja-Prov., 10 km SE Loja, PN Podocarpus, Cajanuma Ranger Stt, 2850 m, 4°6'58" S, 79°10'19" W, 8. x. 2002, sta 21, leg. Gielis & Pelz"; GU-1632-V.P. (CVPR, eventually SMFL).

Paratypes (in total 3 ♂♂, 1 ♀): same data as HT, but with GU-2198-V.P., GU-2197-V.P., GU-2210-V.P (♂♂) and GU-1709-V.P. (♀) (CVPR).

Etymology: The subspecific epithet refers to the occurence of this taxon in the Loja Province. It is herewith defined as a noun in apposition.

Diagnosis: *Inape sororia lojana* ssp. n. is very close to the two preceding taxa but in the ♂ hindwing light cream with only very weak strigulation and not darker towards apex. ♂ genitalia differ mainly in the number and size of cornuti which is lower with 2 longer, rather large and 1–2 small ones than in *I. s. corryssa* ssp. n., but higher than in the nominotypical subspecies; in *I. s. lojana* ssp. n. the sacculus is characterized by a larger, more bent terminal process and a stronger basal process.

Description: ♂ (Figs. 21, 24). Wing span 20.4 mm (19.5–21.5 mm; n = 4). Head, labial palpus, thorax and shape of wings as in the nominotypical subspecies. Ground colour of forewing pale brownish cream. Markings as in the preceeding subspecies. Hindwing light cream with only very weak darker strigulation which is typical for the other subspecies especially towards apex.

♀ (Fig. 27). Wing span 25.5 mm (n = 1). Similar to *Inape sororia corryssa* ssp. n. but hindwing with weaker strigulation.

♂ **genitalia** (Figs. 71, 72). As in the preceding subspecies but sacculus with stronger, downcurved terminal process and larger basal process. Phallus with 3–4 cornuti in vesica (2 longer inequally sized and 1–2 small ones).

♀ **genitalia** (Fig. 85). Similar to *I. s. corryssa* ssp. n. but sclerite of ductus bursae smaller and lateral sclerite somewhat broader.

References

Brown, J. W. (1989): Generic reassignments for Neotropical tortricid moths (Tortricidae). – Journal of the Lepidopterists' Society **43:** 313–322.

——, & Razowski, J. (2003): Review of *Inape* Razowski (Lepidoptera: Tortricidae: Euliini), with descriptions of five new species. – Acta zoologica cracoviensia **46:** 197–208.

Kristensen, N. P. (2003): 4. Skeleton and muscles: adults. – Pp. 39–131 *in:* Kristensen, N. P. (ed.), Lepidoptera, moths and butterflies. Vol. **2:** morphology, physiology, and development. – Part **36** *in:* Fischer, M. (serial ed.), Handbook of Zoology, vol. **IV,** Arthropoda: Insecta. – xii + 564 pp.; Berlin, New York (W. de Gruyter).

Powell, J. A., Razowski, J., & Brown, J. W. (1995): Tortricinae. – Pp. 138–151 *in:* Heppner, J. B. (ed.), Atlas of Neotropical Lepidoptera **3.** Checklist: Part 2, Hyblaeoidea – Pyraloidea – Tortricoidea. – Gainesville (Association for Tropical Lepidoptera).

Razowski, J. (1997): Euliini (Lepidoptera: Tortricidae) of Peru with description of new taxa and list of the New World genera. – Acta zoologica cracoviensia **40** (1): 79–105.

—— (1999): Tortricidae (Lepidoptera) from Ecuador. – Acta zoologica cracoviensia **42:** 321–342.

——, & Pelz, V. (2003a): Tortricidae collected in Ecuador in the years 1996–1999: Euliini (Lepidoptera). – Nachrichten des Entomologischen Vereins Apollo, Frankfurt am Main, N.F. **24** (4): 189–207.

——, & —— (2003b): Descriptions of *Netechmodes* gen. n. and two species of *Netechma* Razowski, 1991 from Ecuador (Lepidoptera Tortricidae). – Bollettino di Zoologia agraria e di Bachicoltura, Ser. II, **35** (1): 17–21.

——, & —— (2004a): Remarks on *Punctapinella* Brown, 1991 (Lepidoptera: Tortricidae: Euliini), with descriptions of five new species from Ecuador. – Entomologische Zeitschrift, Stuttgart, **114** (5): 233–236.

——, & —— (2004b): Remarks on *Seticosta* Razowski, with description of seven new species from Ecuador (Lepidoptera: Tortricidae). – SHILAP Revista de Lepidopterologia, Madrid, **32** (127): 183–194.

——, & —— (2005a): New species of *Gorytvesica* Razowski, 1997 and *Transtillaspis* Razowski, 1987 (Lepidoptera: Tortricidae: Euliini) from Ecuador. – Acta zoologica cracoviensia, Krakow, **48B** (1/2): 57–94.

——, & —— (2005b): *Exoletuncus* Razowski, 1988 (Lepidoptera: Tortricidae: Euliini) from Ecuador, with description of seven new species. – SHILAP Revista de Lepidopterologia, Madrid, **33:** 327–339.

——, & —— (2005c): *Lobogenesis* Razowski, 1990 (Lepidoptera: Tortricidae: Euliini) from Ecuador, with description of ten new species. – Polski Pismo Entomologiczne, Bydgoszcz, **74:** 439–453.

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